Pest Update (July 1, 2009)

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Plant development (Phenology) for the growing season

The basswoods are blooming in Brookings. This is the typical time of the year for them to flower so our season is progressing at a normal pace. The Brookings area plant development is where it should be during a typical year.

E-samples

I got this nice picture from Ken of a catalpa in bloom up in Gettysburg. Catalpas are a popular tree in the state and we have beautiful specimens in our state. The largest trees, in excess of 50 feet, are found in southeastern South Dakota and along the edge of the Black Hills. However there are catalpas found almost everywhere including Murdo and Mobridge, though these often mature a 25 or 30 feet in the harsher climate.

I always receive questions about cottonwood shedding small branches and twigs about this time of year. A common reason for this abscission, a process called cladoptosis, is usually in response to changes in the environment, typically the weather changing from cool and moist to hot and dry. If you look closely at the base of these fallen branches you'll notice there is a well-defined abscission zone, rather than a shredded tear that would characterize a branch or twig broken off by strong winds. The phenomenon is most common on mature cottonwoods and poplars, though it can also occur on oaks. Usually the twigs start falling about the end of June and this can continue through September.

The disease, pear scab, also begins to express symptoms at about this time of year. The disease caused by the pathogen *Venturia pyrina* is related to the similar disease that occurs on apples known as apple scab. Pear scab results in the infected leaves developing a blackened margin, sometimes covering most of the leaf. These leaves will hang for a short time then fall. There will also be lesions on the twigs and the fruit. The symptoms differ from fireblight in that the blackened leaves will still be moist to the touch while the leaves on blighted branches will often be curled, shriveled and dry.

Venturia leaf and shoot blight is appearing on quaking aspens across the state. The disease, also caused by a fungus in the genus *Venturia*, results in the affected shoot tips turning black and drooping. The foliage will also develop blackened and browning lesions and eventually the tissue will become brittle and fall. The disease is most common in young quaking aspens and rarely is a problem on mature trees.

The European elm leaf weevil is now in South Dakota. Dave, a service forester, from Hot Springs, noticed there were a lot of holes appearing in elm leaves in town. Elm leaf beetles are usually associated with this type of injury but upon closer inspection he noticed small insects on the leaves that did not look like the leaf beetles but weevils. There are a couple of weevils that occasionally feed on elms but when I examined them close up they turned out to be the European elm leaf weevil (*Orchestes alni*) an insect first identified in Wisconsin and Illinois in 2003 and last year found in Ohio. The insect can defoliate an elm, particularly Siberian elm, though the damage is usually not enough to harm the tree, just make it look bad (as though it is possible to make a Siberian elm look any worse than it usually does!)

Samples received

Brule-Buffalo Counties (district) **What is causing this hackberry to decline?**

This is one of the most persistent, yet not positively identified, problems we have seen on hackberry during the past 15 years. Mature hackberry trees will have leaves on individual branches yellow and wilt, almost like the symptoms associated with Dutch elm disease on elms. Sometimes the affected branches die and the tree recovers, other times the tree dies in two or three years after the first branch has these symptoms. A phytoplasma has been associated with the decline of European hackberry in Italy and the symptoms appear quite similar to

what we have seen in our state. Unfortunately I have no recommendation I can give you other than to wait and see if the tree recovers.

Butte County (extension) **What is wrong with these ponderosa pines? The needles are browning.**

The older needles have been eaten away near the tips and the damage resembles that done by the pine butterfly (*Neophasia menapia*). Unfortunately the larvae have finished their feeding so I cannot confirm that this is the butterfly. This insect is similar to pine sawflies in that they feed on the needles in the spring, often in colonies or clusters. The feeding is usually only a stress to the tree, rather than a killer, as only the older foliage is consumed. Infested trees may have a tufted appearance due to the loss of the tips of the older needles.

Butte County (extension) **What is causing this growth on the poplar twigs?**

This is the work of the poplar vagabond aphid (*Mordvilkoja vagabunda*). The feeding by the aphids causes the infested leaves at the shoot tips to become twisted and hollow. The insect can be controlled with an insecticide containing acephate applied just as the leaves are expanding in the spring.

Day County (extension) **This tree has not done anything since the 2008 windstorm. What is wrong with it?**

The windstorm that occurred not quite a year ago in your area left a tremendous number of trees broken beyond repair. This tree is a cherry and they are very sensitive to breakage and even trees that appear unharmed can have enough root injury (from the swaying) to cause the plant to die. I would remove the tree.

Grant County (extension) **What is causing these bumps to appear on the ash leaves?**

This is ash rust, a disease discussed in the June 17th issue of the *Update*. The early symptoms of the disease are whitish bumps on the leaves.

Rock County (extension) **What is causing these wood shavings to fall from maple tree?**

Identifying insects from the shaving is not always an easy (or the diagnosis correct) but they appear to be from the carpenterworm (*Prionoxystus robiniae*). This is a borer that attacks a number of tree species including maples and has been found in dying maples in state. The holes they create are larger than a pencil and the mature larvae can be almost the size of your small finger. The larvae maintain a hole to the outside so they can continuously clear their galleries so “sawdust” falling is a common symptom of their infestation. Since they have a long larval stage, it can last for years, control is very difficult and is

limited to applications of an insecticide containing permethrin as the active ingredient applied in early May.

Yankton County (Extension) **What is wrong with this pear and peach?**

The pear problem is pear scab; see the information above under e-samples. The peach is infected by peach leaf curl, a disease that causes the new foliage to redden and become distorted before finally drying. This disease can be controlled by an application of a copper fungicide or lime-sulfur applied after leaf fall in autumn and again before bud break in the spring. Do not apply after bud break as the lime-sulfur may injury the foliage and it would also be too late for effective control.